

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016315**Date Inspected:** 14-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Liu Hua Jie

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Segment Trial Assembly

ABF issued "Inspection Notification Sheet" number 08132010-1 item #1 informing QA that on 08-14-2010 at 20:20 hours ABF Inspectors will perform ultrasonic (UT) inspections of repaired weld OBW9B-008. These weld repairs are located on the bottom plate between OBG segments 9BW and 9CW in the trial assembly area. This QA Inspector observed ABF/Sense UT Inspectors originally reported seven ultrasonic rejections at various locations of this weld. Today this QA Inspector observed indication #2 located at Y=2950 has recently been marked by ABF personnel as still being a UT rejection. This QA Inspector performed random visual and ultrasonic inspections utilizing scanning patterns A, B, C and D (AWS D1.5 Fig 6.7) and the seven repaired areas and the one UT rejection that had been identified by ABF was confirmed at the same location that ABF personnel had marked and the remainder of the areas that were randomly inspected appear to comply with project specifications. Note: These inspections were documented and tracked on "Verification Witness Request" documents. See the TL-6027 UT report for additional information concerning this inspection.

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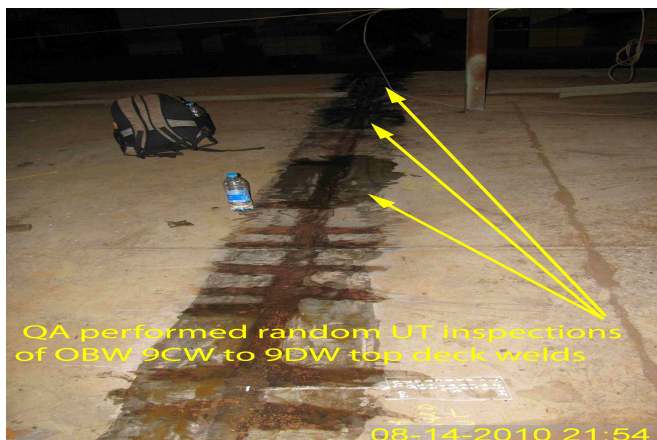
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ABF presented QA personnel with UT report number UT-9W-065, dated 8-14-2010 that indicated that welds OBW9A-002 (A2), OBW9A-003 (A1) and OBW9A-004 (A10) had been ultrasonically inspected. The report indicates that welds A2 and A10 had two rejections and weld A1 had six rejections. This QA Inspector performed random visual and ultrasonic inspections of weld A2 and two of the indications in weld A10 nearest to weld A2 (2545mm and 6800) utilizing scanning patterns A, B, C and D (AWS D1.5 Fig 6.7) and no additional ultrasonic rejections were observed. Note: These inspections were documented and tracked on "Verification Witness Request" documents. See the TL-6027 UT report for additional information concerning this inspection.

This QA Inspector observed ZPMC welder Mr. Xu Zichuan, stencil 205098 was using shielded metal arc welding procedure WPS-345-SMAW-1G(1F)-Repair to complete weld repairs of UT rejections in weld OBWK9-003 through -008. These welds are located on the edge plate to counterweight attachment plates on OBG segments 9AW. This QA Inspector observed a welding current of approximately 150 amps, the base material had been preheated with a torch and Mr. Xu Zichuan appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Chang Ming, stencil 047864 was using shielded metal arc welding procedure WPS-345-SMAW-1G(1F)-Repair to complete weld repairs of UT rejections in weld OBWK9-003 through -008. These welds are located on the edge plate to counterweight attachment plates on OBG segments 9AW. This QA Inspector observed a welding current of approximately 155 amps, the base material had been preheated with a torch and Mr. Wang Chang Ming appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 046766 was using flux cored welding procedure WPS-B-T-2231-T to complete weld OBWK9-010. This weld was located on the edge plate to counterweight attachment upper plate on OBG segments 9CW. This QA Inspector observed a welding current of approximately 300 amps and 28 volts, the base material had been preheated with electric heaters. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
